

REMARKS

Claims 1, 7 and 11 have been canceled without prejudice. Applicant reserves the right to claim the subject matter of these claims in a later filed application.

Claims 2-6, 8-10 and 12-14 remain in the application.

Section 102(e) rejection of claims 1-9 and 11-13

In section 4 of the Office Action, claims 1-9 and 11-13 were rejected under 35 U.S.C. 102(e) as being anticipated by Galloway et al. (US Pat. No. 6,765,749).

Applicants respectfully traverse the rejection on the grounds that the reference fails to teach every element of the claims (MPEP2131).

With respect to claims 1-6, claim 1 has been canceled, and claim 2 has been rewritten in independent form including all the limitations of the base claim 1. Claim 2 recites, in relevant part, the following limitations:

"a band-pass filter for passing a center frequency component corresponding to the resonance frequency from the servo signal transmitted from the servo control unit;

a phase shifter for receiving a signal containing the resonance frequency as an input, and for shifting a phase at the resonance frequency of the signal by a predetermined amount; and

a multiplier for multiplying the signal passed through the band-pass filter by the signal passed through the phase shifter;"

The Examiner stated that the Galloway reference discloses that the deviation detecting means comprises a band-pass filter for passing a center frequency component corresponding to the resonance frequency from the servo signal. Applicant can find no teaching of a band-pass filter. In the referenced section (Col. 2, lines 46-57), Galloway discloses a notch filter which is described as a band-rejection filter that produces a sharp notch in the frequency response curve of the disk drive. Applicant respectfully requests the Examiner to point out where in the reference there is a teaching of "a band-pass filter for passing a center frequency component corresponding to the reference frequency ---" as claimed in the invention. In the invention, the deviation detection means has a band-pass filter for passing a center frequency component corresponding to the resonance frequency from the servo signal, a phase shifter for receiving a signal containing the resonance frequency and for shifting a phase at the resonance frequency by a predetermined amount, and a multiplier for multiplying the signal through the band-pass filter by the signal passed through the phase shifter (Page 4, line 20 to page 5, line 5). In contrast, Galloway applies a notch filter, observes the resulting peak amplitudes and recomputes the notch filter coefficients to achieve a satisfactory peak amplitude response (Fig. 10). The Galloway reference simply fails to teach a band-pass filter, a phase shifter or a multiplier for detecting deviation of a reference frequency as claimed.

Since the reference fails to teach every element of the claim, Applicant submits that a 102(e) rejection is improper. Therefore, the Examiner is respectfully requested to withdraw the grounds of rejection with respect to claim 2. Since claims 2-5 and claim 6 (amended to depend on claim 2) depend on independent claim 2 and the grounds of rejection with respect to claim 2

have been overcome, the Examiner is also requested to also withdraw the grounds of rejection with respect to claims 2-6.

With respect to claims 7-9, claim 7 has been canceled and claim 8 has been rewritten in independent form including all the limitations of claim 7.

Claim 8 recites, in relevant part, the following limitation:

"wherein the servo signal is passed through a band-pass filter."

The Galloway reference simply fails to teach a band-pass filter. The arguments presented herein above with respect to claim 2 apply equally to claim 8. Since the reference fails to teach every element of the claim, Applicant submits that a 102(e) rejection is improper. Therefore, the Examiner is respectfully requested to withdraw the grounds of rejection with respect to claim 8. Since claim 9 as amended depends on independent claim 8 and the grounds of rejection with respect to claim 8 have been overcome, the Examiner is also requested to also withdraw the grounds of rejection with respect to claim 9.

With respect to claims 11-13, claim 11 has been canceled and claim 12 has been rewritten in independent form including all the limitations of claim 11.

Claim 12 recites, in relevant part, the following limitation:

"wherein the means of extracting the resonance frequency of the structure contained in the servo signal passes the servo signal through a band-pass filter."

The Galloway reference simply fails to teach a band-pass filter. The arguments presented herein above with respect to claim 2 apply equally to claim 12. Since the reference fails to teach every element of the claim, Applicant submits that a 102(e) rejection is improper. Therefore, the Examiner is respectfully requested to withdraw the grounds of rejection with respect to claim 12.

Since claim 13 as amended depends on independent claim 12 and the grounds of rejection with respect to claim 12 have been overcome, the Examiner is also requested to also withdraw the grounds of rejection with respect to claim 13.

Allowable subject matter

In section 5 of the Office Action, claims 10 and 14 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims.

Applicant thanks the Examiner for indication of allowability of these claims.

Since claim 10 is dependent on base claim 8 and claim 14 is dependent on base claim 12 and the grounds of rejection with respect to claims 8 and 12 have been overcome, Applicant believes that claims 10 and 14 are now in condition for allowance and such action is respectfully requested.

The other documents cited by the Examiner, but not applied to the claims currently in the application, have been reviewed and as understood, do not teach or suggest Applicants' claimed invention.

In view of the preceding amendments and remarks, Applicant believes that all the grounds for objection and rejection have been overcome and the pending claims are in condition for allowance and such action is respectfully requested.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read 'William D. Gill', is written over a solid horizontal line.

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